

**Rhode Island:**  
**Coastal Resources Management Council**  
**Department of Environmental Management**  
**Division of Planning, Statewide Planning Program**

RI State Guide Plan Update:  
Water Quality Management Plan Advisory Committee Meeting

**Tuesday, February 25, 2014**

**10:00 AM – 12:00 PM**

Room 300

Department of Environmental Management  
235 Promenade Street, Providence

**Agenda**

1. Agenda Overview
2. Feedback on January meeting topics
  - a. Road Salt Technical Paper
  - b. Summary of Resource Based Priorities
3. Subject Topics and Technical Presentations:
  - a. Draft Goals & Policies for Agriculture
  - b. Draft Goals & Policies for Wildlife /Waterfowl  
*Guest Advisor: Gary Casabona, RI NRCS State Biologist*
  - c. Aquatic Habitat Restoration
    - i. Salt Marsh Preservation /Restoration
      1. James Boyd, CRMC
      2. Caitlin Chaffee, CRMC
    - ii. Aquatic Invasives
    - iii. Draft Goals & Policies for Aquatic Habitat
4. Discussion & Feedback – *All - moderated by Sue Kiernan*
5. Looking ahead -
  - a. Next Meeting Date (s)
    - i. Two meetings for March?
      1. March ?
      2. March 25 (4<sup>th</sup> Tuesday)
  - b. Committee Homework -
6. Adjourn 12:00 PM

***DRAFT 2/18/14***

## **AGRICULTURE**

**Goal: Agricultural operations are managed to protect groundwater and surface water quality and public health.**

Pollutants: pathogens, nutrients, pesticides, sediment, petroleum wastes

Rhode Island's farms contribute to the state's economic development and provide Rhode Islanders with local food and farm vistas, as well as tourism opportunities and wildlife habitat. But the nature of farming in RI has changed significantly over the past XX years. There are less of the larger farms (particularly dairy) but more smaller and specialized farms e.g..... The smaller farms are producing more farm products that are consumed locally.

RI General Laws defines a farm as someone who has earned \$10,000 gross income on farm products in each of the preceding 4 years.

Data from the US Department of Agriculture 2012 survey (*To be released Feb 2014; Title..*) shows:

- # farms in RI in 2012 using xx acres v. 580 farms using 33,000 acres in 1990
- Market value of agricultural production: 2002 \$55.5 million,
- Numbers on livestock?
- *Other relevant information*

Farming operations will continue to take place in Rhode Island, and thus it is important to ensure that these operations continue to be conducted in a manner that will avoid water quality impacts.

The potential water quality contaminants associated with agricultural operations include nutrients (from fertilizers and animal wastes), pathogens and organic materials (primarily from animal wastes), sediment (from field erosion), pesticides, and petroleum products. In addition, water withdrawals are an issue of increasing concern. The need for irrigation water can place high demands on local groundwater or surface water supplies which, in turn, can cause a low flow condition in streams potentially resulting in dramatic negative impacts on stream ecology. (See section on Watershed Hydrology Management).

Well managed farms can operate with minimal adverse impacts on water resources. However, instances of contamination of surface water and groundwater have occurred. *Examples of WQ impacts: groundwater – aldicarb in mid 80s. Nitrate turf fields mid 2000. Surface water.... Wetlands...*

An important step to minimize the impact of agricultural operations is for a farm to develop and implement a Conservation Plan that addresses water quality issues. This plan describes the schedule of implementation practices needed to solve natural resource concerns and may include multiple components to address particular resource issues, such as nutrient management, irrigation management, integrated pest management, wildlife management, forest management and others. However, the only requirements for farms to have such plans is if they participate in

the Farm, Forest Open Space Program, which is a program to allow eligible properties to be assessed at its current use, not its value for development. Conservation plans are developed in conjunction with USDS Natural Resources Conservation Service (NRCS) and the local conservation districts.

There are no state regulations that establish standards for specific farm management practices to control or prevent water pollution. However, DEM has created standards and specifications for agricultural best management practices which aim to prevent, abate, or minimize pollution of surface waters and groundwater. These standards and specifications are guidelines only. The guidelines are designed so that farmers may understand and identify on-farm sources of water pollution and implement effective strategies to address them.

In those instances, where farmers have contributed to degradation of water quality and decide to take actions to prevent contamination or upgrade their existing structural or management practices, DEM Agriculture and the USDA Natural Resources Conservation Service (NRCS) will work with farmers to identify the appropriate corrective strategies. Funding to implement best management practices may then be available through the NRCS Environmental Quality Incentives Program (EQIP). This is a voluntary program that provides financial and technical assistance to farmers to help plan and implement conservation practices that address natural resource concerns. Farmers that apply through the EQIP may be eligible for 75% cost share on projects built in accordance with the NRCS standards. As of the adoption of the 2008 USDA Farm Bill, 284 EQIP contracts have been awarded in RI. In addition, NRCS has dedicated 5% of the EQIP funds for projects in priority watersheds chosen jointly with DEM under the joint EPA/USDA National Water Quality Initiative to work with farmers to implement approved strategies to improve water quality.

Policy: Farms have updated Conservation Plans. Actions:

- Investigate opportunities to encourage farmers to prepare Conservation Plans.
- Require farmers participating in the Purchase of Farmland Development Rights Program to prepare Conservation Plans.
- Regularly inspect farms with required Plans (e.g., farms enrolled in Farm, Forest, Open Space Program) for compliance.

Policy: Ensure farm practices are conducted in a manner to minimize water quality impacts.

- DEM and NRCS continue to collaborate on implementing the National Water Quality Initiative.
- Investigate means to encourage farmers to participate in NRCS cost-sharing programs.
- DEM selectively monitor groundwater and surface water quality near agricultural operations.
- Encourage farmers to establish and maintain effective riparian buffers (see Section on Habitat Management)
- Respond to instances of contamination suspected to be caused by farms.
- Close unauthorized floor drains in areas used for farm machinery repair.
- As necessary, consider the need to adopt regulations to address specific agricultural threats to water quality (e.g. covering manure storage, limit animal access to water resources).
- Ensure that any process wastewater on farms is properly regulated.

## Pesticide Management

The DEM Division of Agriculture is responsible for enforcing state laws and regulations developed to protect people from poisonings and to prevent environmental degradation that might result from improper use of pesticides on farms, in yards, and inside homes. Through this program, commercial pesticide applicators are trained, tested, and licensed to achieve a level of competence in the pesticide application industry.

Anyone who applies pesticides for hire on other people's property must have a commercial pesticide applicator's license to apply general use (over the counter) pesticides. Farmers and farm workers who apply restricted use and state limited use pesticides to produce an agricultural commodity need to have a private applicator's certificate. Dealers who sell restricted use pesticides and state limited use pesticides to certified applicators must have a pesticide dealer's license.

Pesticides that are applied by a licensed applicator in accordance with the EPA approved label directions are considered protective of environmental quality, and such application is not reviewed by DEM. The only specific applications reviewed by DEM are herbicides applied directly to surface waters and wetlands to control nuisance and invasive aquatic species. This use of herbicides has increased over the years as these species have become more of a problem for users of the state's waters and have had dramatic adverse impacts on aquatic habitat. (See section on Aquatic Habitat Management). (*Permit numbers available?*) Applications to apply herbicides to control aquatic nuisance species are reviewed for their impacts to the receiving waters and nearby drinking water wells.

Policy: Ensure pesticides are used in RI in a manner to minimize impacts to water quality.

Actions:

- Implement the current Rules and Regulations Relating to Pesticides and continually evaluate the effectiveness of these Rules.
- Encourage farmers to incorporate an integrated pest management component into their farm Conservation Plan.
- Evaluate, as needed, the threat to surface water and groundwater from particular pesticides used in sensitive areas.

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Water Quality Management Plan Advisory Committee Meeting

**Tuesday, January 28, 2013**

**10:00 AM – 12:00 PM**

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Department of Environmental Management  
235 Promenade Street, Providence

## **Meeting Notes**

Committee Members in attendance were: Jane Austin (Save The Bay), Eric Boettger (NRCS), Thomas Borden (NBEP), Kathy Crawley (WRB), Rachel Calabro (RIRC), Ames Colt (BRWCT), David Everett (Providence), Peter Healey (RIDOT), Vincent Murray (SK Planning Dept.), Jennifer Paquet (Town of West Greenwich), Margharita Pryor (EPA), Marilyn Shellman (Town of Westerly), June Swallow (RIDOH), Nicole Rohr (URI). DEM/CRMC/Statewide Planning staff in attendance included: Sue Kiernan, Erinie Panciera, and Elizabeth Scott of RIDEM, Jeff Willis of CRMC and Nancy Hess and Paul Gonsalves of Statewide Planning.

### Agenda Overview and Comments on 12/17/13 Meeting Notes

Sue Kiernan started the meeting with a brief overview of the agenda, including a call for comments on the meeting notes from 12/17/13. Comments on the 12/17 meeting notes included an inclusion of a blanket statement for impervious cover on page 5 and a tie-in to transportation for page 6.

### Feedback on Draft Stormwater Goals

The definition of "Green Infrastructure" surfaced again. The definition should take 2 aspects into account: (1) natural vs. built environment and (2) proximity (on or off-site). The goal is to treat water as close to the source as possible. With all stormwater policies, it is also important to make the necessary

linkages to other State Guide Plan elements dealing with open space, forestry, etc.

### Road Salt/Sand Application in RI

Paul gave a summary of the Road Salt/Sand Technical Paper that was recently drafted and sent to the committee for review. The overview began with a brief description of Rhode Island's average number snow/ice events along with snowfall average numbers. The state sees about 37 inches of snow per year on average. Salt has been used in the state since the 50's, while sand has been used since the 20's. The state DOT spends about \$10 million per year on snow and ice maintenance operations. There are 3 maintenance techniques regularly practiced for winter storms: (1) Anti-icing is a liquid salt water/brine solution applied before ice/snow events, (2) pre-wetting ensures that the sand and salt stick to the road, and (3) de-icing consists of chemically or mechanically removing snow and ice from the road surface. The RIDOT currently operates twenty stock piles of salt and sand throughout the state.

RIDOT has a fleet of 100 plow/spreader trucks. 69 of which are equipped with a "closed loop spreader control" system. This system allows drivers to electronically monitor salt and sand application rates in "ponds per lane mile". The closed loop system is a more efficient way to apply road salt and sand, and it is effective in reducing the amount of salt and sand applied to roads. Other technologies such-as temperature monitoring road devices are used as well. Municipalities do not use the closed loop system and are known to have a higher "lbs/lane mile" application ratio.

Potential impacts on drinking water supply, wildlife and freshwater aquatic impacts were discussed. Also, the effect of road salt on vegetation was mentioned. Certain types of roadside vegetation for example, are more resistant to salting than other vegetation types.

The State of New Hampshire recently studied and applied salt reduction techniques on their highways. This program was discussed as a case study in this technical paper. Several of the recommendations from the New Hampshire report were mentioned and there was a brief discussion as to the feasibility of these techniques in Rhode Island. Ultimately, the paper has several recommendations for mitigating road salt/sand effects on RI roads and highways. These recommendations include:

- Reduction in road salt application through increased use of the “closed loop system”
- Reduction in sand application
- Increase sand recovery rates after each winter season
- Expand “reduced salt” areas to all drinking water supply protection areas.

General discussion took place on the content of the paper. Elizabeth Scott offered some clarifying commentary on some points within the paper regarding the number of water bodies identified as impaired by road salt. The actual number may be somewhat low as DEM does not necessarily look for salt all year round- the actual impact could be under assessed. Also there needs to be better efforts to clean up sand from roadsides and out of rivers and harbors. Rachel Calalbro expressed concern that such salt may be more harmful to smaller order stream habitats. Also questions were discussed which concerned the handling of large volumes of snow which is overseen by the RIPEDS program and if the paper could provide a recommendation on specific roadside vegetation. Also where the current storage spots on the map in good locations?

### Setting Resource Based Priorities for Protection and/or Restoration

Sue kicked off the next topic for discussion. Some background info on prioritization in water quality management programs was discussed. Several examples of existing applications of prioritization were given including:

- DEM 303(d) list dealing with TMDLs development
- DEM Project Priority List scoring system
- DEM Nonpoint Source (319) grants and BWRP scoring system
- NRCS National Wildlife Initiative
- DEM Annual Work Plan

A ranking exercise was the next item on the agenda. Each member of the advisory committee was given colored stickers to place on a large list of water quality management objectives. The most popular objectives were (in order of votes received):

1. Prevent public drinking water sources from being impaired- surface water & groundwater
2. Prevent degradation of high quality waters and aquatic habitats
3. Protect wetlands, including riparian buffers, and minimize loss

The group agreed that ways to retrieve the maximum value from watershed plans need to be addressed. A mechanism to express what should be done in each watershed is needed. Most likely, areas inside the Urban Services Boundary (USB) will be dealing with "restoration" issues, while areas outside the USB will be focused more on "protecting and preventing". There was discussion about open space protection outside of the USB. An "in lieu" provision was suggested. This provision could be similar to TDR, but focus on the USB and designated Growth Centers. Although some agreed that there should be less emphasis on restoration and more on prevention, we should not overestimate the function of rivers for cases of flood control.

#### Next Meeting Date

The group agreed upon a date of February 25th for the next meeting.